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10/817,083

04/02/2004

Matthew A. Job

16561

6091

50659

7590

12/29/2006

BUTZEL LONG

STONERIDGE WEST

41000 WOODWARD AVENUE

BLOOMFIELD HILLS, MI 48304

EXAMINER

LOWE, MICHAEL S

ART UNIT

PAPER NUMBER

3652

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-------------------------------|----------------------------|--|
| Office Action Summary | Application No. 10/817,083 | Applicant(s) JOB ET AL. | |
| | Examiner M. Scott Lowe | Art Unit 3652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicant's election without traverse of claims 1-22 in the reply filed on 10/5/06 is acknowledged.

Claims 23-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/5/06.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "said clamshell gripping *mechanism*" in line 1.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-10,17,20 are rejected under 35 U.S.C. 102(b) as being anticipated by Suizu (US 4,592,692).

Re claims 1,17, Suizu teaches an apparatus for handling packages W between a pickup location and a spaced destination location, comprising:

a clamshell gripper means (26,etc.) adapted to be attached to a robotic arm (5,6,7,etc.);

a first means 42 for moving said clamshell gripper means between a clamped position and an unclamped position;

a fork-type loader 22 adapted to be attached to the robotic arm;

a second means 30 for moving said fork-type loader between a pick position (conveyor 50) and an open position; and

control means (not numbered) connected to said first and second means for moving, said control means selectively operating said clamshell gripper means and said fork-type loader in independent and cooperative modes whereby said clamshell gripper means engages opposite sides of a package in said clamped position and said fork-type loader supports a bottom of the package in said pick position.

Re claim 2, Suizu teaches an overhead base unit adapted to be attached to the robotic arm, said clamshell gripper means (26,etc.) and said fork-type loader 22 being mounted on said overhead base unit.

Re claims 3,4, Suizu teaches (see figures 5-6) said clamshell gripper means further comprises a first/second side support mechanical linkage (not numbered) coupled to a first/second side support plate, said first/second side support mechanical linkage (not numbered) being pivoted about a first/second pivoting member, said

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first/second side support plate being adapted to engage one of the opposite sides of the package.

Re claims 5,20, Suizu teaches said first side support mechanical linkage and said second side support mechanical linkage are mounted to transition between said unclamped position and said clamped position in an arc-like motion.

Re claim 6, Suizu teaches a base unit (not numbered, see figures 5-6), said first and second side support linkages being pivotally mounted on said base unit for movement between said unclamped and clamped positions with an arc-like motion.

Re claim 7, Suizu teaches said first means 42 for moving includes a pair of pneumatic cylinders each connected to an associated one of said first and second side support linkages, said cylinders being connected to said control means for actuation.

Re claim 8, Suizu teaches (see figures 5-6) said fork-type loader 22 includes at least one arm being pivotally mounted and having one end connected to said second means for moving and an opposite end, and a fork-type support member (32,etc.) attached to said at least one arm opposite end for engaging and supporting the bottom of the package W.

Re claim 9, Suizu teaches said fork-type loader 22 being pivotally mounted on said base unit for movement between said pick and open positions with an arc-like motion.

Re claim 10, Suizu teaches said second means 30 for moving includes a pneumatic cylinder connected to said fork-type loader, said cylinder being connected to said control means for actuation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suizu (US 4,592,692) in view of Dwyer (US 4,256,429).

Re claims 11,19, Suizu is silent regarding a movable upper support pad. Dwyer teaches an upper support pad 112 (and third movement means 116) moveable between an engaged position for engaging an upper surface of the package and a disengaged position in order to aid package alignment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Suizu by Dwyer to have an upper support pad moveable between an engaged position for engaging an upper surface of the package and a disengaged position in order to aid package alignment.

Re claim 12, Suizu as already modified by Dwyer teaches said upper support pad is positioned above said fork-type loader when said fork-type loader is in said pick position.

Re claim 13, Suizu as already modified by Dwyer teaches a pneumatic cylinder attached to said upper support pad, said cylinder being connected to said control means for actuation.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suizu (US 4,592,692) in view of Dwyer (US 4,256,429) and further in view of Borcea (US 4,741,568).

Re claim 14, Suizu is silent regarding selectively limiting at least one of said unclamped position and said open position to less than a full travel. Borcea teaches (columns 1-2) soft stop means and a hard stop means connected to said control means for selectively limiting at least one of said unclamped position and said open position to less than a full travel in order to avoid interference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Suizu by Borcea to have soft stop means and/or a hard stop means connected to said control means for selectively limiting at least one of said unclamped position and said open position to less than a full travel in order to avoid interference.

Re claim 15, Suizu as already modified by Borcea teaches said soft stop means controls at least one of said first and second means for moving.

Re claim 16, Suizu as already modified by Borcea teaches said hard stop means includes a stop (Borcea 17,42,etc.) for engaging one of said clamshell gripper means and said fork-type loader and a stop actuator (Borcea 17,42,etc.) connected to said control means for selectively moving said stop.

Claims 18,21,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suizu (US 4,592,692) in view of Borcea (US 4,741,568).

Re claim 18,21,22, Suizu is silent regarding selectively limiting at least one of said unclamped position and said open position to less than a full travel. Borcea teaches (columns 1-2) soft stop means and a hard stop means connected to said control means for selectively limiting at least one of said unclamped position and said open position to less than a full travel in order to avoid interference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Suizu by Borcea to have soft stop means and/or a hard stop means connected to said control means for selectively limiting at least one of said unclamped position and said open position to less than a full travel in order to avoid interference.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Berko (US 4,273,499) teaches an upper support pad and clamshell grippers.

Squires (US 5,088,783) teaches forks and clamshell grippers.

Tygard (US 5,516,255) teaches forks and clamshell grippers.

Mills (US 5,620,233) teaches adjustable gripper movement controls.

Sealberg (US 6,135,704) teaches forks and clamshell grippers.

Moilanen (US 6,176,533) teaches adjustable gripper movement controls.

Holter (US 6,305,728) teaches forks and clamshell grippers.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is (571) 272-6929. The examiner can normally be reached on 6:30am-4:30pm M-W; Th work offsite.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

msl


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